

What is claim d is:

1. A method for managing an optical recording medium having at least one defective area in a user data area, said method comprising:

recording data recorded in the defective area in a spare area of the optical recording medium as replacement data and providing a first temporary defect list having a defect entry for the at least one defective area; and

recording a cumulative temporary defect list for an additional defective area in the user data area, wherein the cumulative temporary defect list includes the first temporary defect list previously recorded and at least one additional defective entry for any additional defective area.

2. The method according to claim 1, further comprising recording information for accessing the cumulative temporary defect list as temporary disc definition structure information in a temporary disc definition structure area of the optical recording medium.

3. The method according to claim 2, wherein the cumulative temporary defect list and the temporary disc definition structure information are recorded in the same area of the optical recording medium.

4. The method according to claim 3, wherein the cumulative temporary defect list and the temporary disc definition structure information are recorded in a temporary defect management area of the optical recording medium.

5. The method according to claim 2, further comprising recording the temporary disc definition structure information and the cumulative temporary defect list information in a final defect management area separately provided in a specified area of the optical recording medium during a disc finalization operation.

6. The method according to claim 4, further comprising recording the temporary disc definition structure information and the cumulative temporary defect list information in a final defect management area separately provided in a specified area of the optical recording medium during a disc finalization operation.

7. The method according to claim 1, wherein the optical recording medium is a Blu-ray disc of writable once type (BD-WO).

8. The method according to claim 6, wherein the optical recording medium is a Blu-ray disc of writable once type (BD-WO).

9. The method according to claim 1, wherein each of the first temporary defect list and the cumulative temporary defect list includes management information for the data within the respective defective areas.

10. The method according to claim 9, wherein the management information includes a first physical sector number of the replacement data for each defect entry and a first physical sector number of a defective area for each defect entry.

11. The method according to claim 1, wherein the spare area of the optical recording medium includes an inner spare area and an outer spare area, and the step of recording data recorded in the defective area utilizes at least one of the inner spare area and the outer spare area.

12. The method according to claim 1, wherein the cumulative temporary defect list is repeatedly recorded in at least two areas of the optical recording medium.

13. The method according to claim 12, wherein the at least two areas of the optical recording medium are a portion of a data area and a lead-in area of the optical recording medium.

14. The method according to claim 13, wherein the portion of the data area is an area adjacent to an outer spare area of the optical recording medium.

15. The method according to claim 12, wherein the at least two areas of the optical recording medium are front and end parts of a data area of the optical recording medium.

16. The method according to claim 12, further comprising recording temporary disc definition structure information in a lead-in area of the optical recording medium.

17. A recording medium comprising:

at least one spare area within a data area;

a temporary defect management area for managing replacement data of at least one defective area within a user data area of the data area; and

a cumulative temporary defect list stored within the temporary defect management area, wherein the cumulative temporary defect list includes management information for the replacement data of said at least one defective area cumulatively recorded and management information for replacement data for at least one additional defective area of the user data area.

18. The recording medium according to claim 17, further comprising a temporary disc definition structure within a lead-in area of the recording medium, wherein the recording information for accessing the cumulative temporary defect list is stored as temporary disc definition structure information within the temporary disc definition structure.

19. The recording medium according to claim 18, wherein the cumulative temporary defect list and the temporary disc definition structure information are recorded in the lead-in area of the optical recording medium.

20. The recording medium according to claim 19, wherein the cumulative temporary defect list and the temporary disc definition structure information are recorded in a temporary defect management area of the optical recording medium.

21. The recording medium according to claim 18, further comprising a final defect management area including the temporary disc definition structure information and the cumulative temporary defect list finalized as a final defect definition structure information and a final defect management list, respectively.

22. The recording medium according to claim 20, further comprising a final defect management area including the temporary disc definition structure information and the cumulative temporary defect list finalized as a final defect definition structure information and a final defect management list, respectively.

23. The recording medium according to claim 17, wherein the recording medium is a Blu-ray disc of writable once type (BD-WO).

24. The recording medium according to claim 22, wherein the recording medium is a Blu-ray disc of writable once type (BD-WO).

25. The recording medium according to claim 17, wherein each of the management informations of the cumulative temporary defect list includes a first physical sector number of the replacement data for each defect entry and a first physical sector number of a defective area for each defect entry.

26. The recording medium according to claim 17, wherein the at least one spare area includes an inner spare area and an outer spare area,

and the replacement data for the at least one defective area is located in at least one of the inner spare area and the outer spare area.

27. The recording medium according to claim 17, wherein the cumulative temporary defect list is repeatedly recorded in at least two areas of the recording medium.

28. The recording medium according to claim 27, wherein the at least two areas of the recording medium are a portion of a data area and a lead-in area of the recording medium.

29. The recording medium according to claim 28, wherein the portion of the data area is an area adjacent to an outer spare area of the recording medium.

30. The recording medium according to claim 28, wherein the at least two areas of the recording medium are front and end parts of a data area of the recording medium.

31. The recording medium according to claim 27, further comprising:

a lead-in area to store therein temporary disc definition structure information.

32. An apparatus for managing an optical recording medium having at least one temporary defect management area, and a spare area in a data area, said apparatus comprising:

means for recording data recorded in at least one defective area of the spare area of the optical recording medium as replacement data and providing a first temporary defect list having a defect entry for the at least one defective area; and

means for recording a cumulative temporary defect list for an additional defective area in a user data area, wherein the cumulative temporary defect list includes the first temporary defect list previously recorded and at least one additional defective entry for any additional defective area.